

PERFLUORINATED AMIDE SALTS AND THEIR USES AS IONIC  
CONDUCTING MATERIALS

ABSTRACT

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The invention concerns ionic compounds in which the anionic load has been delocalized. A compound disclosed by the invention is comprised of an amide or one of its salts, including an anionic portion combined with at least one cationic portion  $M^{+m}$  in sufficient numbers to ensure overall electronic neutrality; 15 the compound is further comprised of M as a hydroxonium, a nitrosonium  $NO^+$ , an ammonium  $-NH_4^+$ , a metallic cation with the valence m, an organic cation with the valence m, or an organometallic cation with the valence m. The anionic portion matches the formula  $RF-SO_x-N^-Z$ , wherein  $RF$  is a perfluorinated group, x is 1 or 2, and Z is an electroattractive substituent. The compounds can be used notably for 20 ionic conducting materials, electronic conducting materials, colorants, and the catalysis of various chemical reactions.